

Claims 1-19 and 27 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. Applicant respectfully traverses this rejection.

The Office Action indicates that Claim 1 recites the limitations “a bulky density within about 20% of said absorbent material’s maximum volume capacity” in lines 5-7. Paper No. 7 at 2. Additionally, the Office Action indicates that Claim 19 also recites the same limitation in lines 1-2. Paper No. 7 at 2. Clarification is respectfully requested on this last sentence as Applicant cannot find such wording in Claim 19. Applicants have found this language in Claim 27 and will address this rejection as if directed to this claim.

The Office Action furthers indicates that it is unclear how 20% of the maximum volume capacity, defined in the specification as a value of cc/cc, relates to the density, as a value defined in g/cc. Applicant has amended Claims 1 and 27 to clarify this matter. Applicant has added language that is inherent in the disclosure and merely clarifies that the claimed density is within 20% of the density at which the maximum volume capacity is reached. This interpretation is certainly the only interpretation that one of ordinary skill in the art would take from the originally filed disclosure and claims. Reconsideration and withdrawal of this rejection are earnestly solicited.

Claims 1, 4-6, 8, 13, 15, 16, 19, 26-30, 34, and 35 stand rejected under 35 U.S.C. 102(b) as being anticipated by Reeves et al. (U.S. Patent No. 4,278,088) (“Reeves”). Applicant respectfully traverses this rejection.

The present invention is directed to an absorbent article having a fluid-permeable bag and a plurality of tablets made from compressed, fibrous, absorbent material. (Page 7, lines 20-22.) The tablets are made from a fibrous mass of absorbent fibers compressed to a bulk density within about 20% of the maximum volume capacity. (Page 7, lines 22-24.) As the 100% point is exceeded, the volume capacity decreases, and the absorption performance of the fibrous system decreases. (Page 7, line 27 to page 8, line 1.) The fibrous, absorbent material includes bondable fibers, bondable fiber blends, and/or fibers combined with binding agent. (Page 8, lines 9-11.) The absorbent articles of the present

invention show a substantial increase in expansion when going from dry to wet. (Page 20, 5-9.)

Reeves discloses a bag-type tampon having discrete pieces of a compressed dry-shape retaining absorbent rigid paper-like matt. (Column 1, lines 53-55.) The absorbent material may be fibers that are compressed into sheets sufficient to be cut by conventional paper cutting apparatus. (Column 2, lines 10-16.) The absorbent material after compression will be more or less similar to stiff paper or cardboard. (Column 2, lines 22-23.) The sheet material has a thickness of 0.5 to 0.1 times the thickness of uncompressed material. (Column 2, lines 23-26.) The tampon does not expand after insertion. (Column 1, lines 66-67.)

In making the rejection, the Office Action asserts that Reeves discloses an absorbent article, as shown in figure 1, comprising an overwrap 1 and absorbent material 2. The overwrap is fluid-permeable, as disclosed in column 1, lines 55-57. The Office Action then alleges that the absorbent material 2 comprises a plurality of compressed, fibrous tablets, as disclosed in column 1, lines 53-55. (Paper No. 7, at 2-3.)

As is well settled, anticipation requires “identity of invention.” Each and every element recited in a claim must be found in a single prior art reference and arranged as in the claim. Furthermore, there must be no difference between what is claimed and what is disclosed in the applied reference. Moreover, it is incumbent upon the Examiner to *identify wherein each and every facet* of the claimed invention is disclosed in the applied reference.

At the outset, it is respectfully submitted that Reeves does not disclose as much as the Office Action contends. In particular, the Office Action has failed to set forth where in Reeves there is a disclosure of the absorbent material having a bulk density within about 20% of said absorbent material’s maximum volume capacity.

While Reeves may disclose a compressed mat, there is no indication that the mat is compressed to within about 20% of the mat’s maximum volume capacity. This is further shown as the matt does not expand as does the compressed absorbent material of the present invention. The present application describes the absorbency of fiber systems, particularly at various bulk densities. The weight capacity (“C<sub>w</sub>”) of a fibrous system decreases as bulk density increases (a substantially linear relationship). The volume

capacity (“C<sub>v</sub>”) is determined on the basis of capacity per unit of original dry-bulk volume of fibers. At the maximum C<sub>v</sub>, the expansion ratio (wet/dry) is also at its maximum. This expansion must be significant, and it is not disclosed in Reeves. Indeed, Reeves specifically teaches that its tampon does not expand after insertion. (Column 1, lines 66-67.) Therefore, Applicant submits that Reeves fails to teach the present invention and that the rejection is improper. Therefore, Applicant requests that the present rejection be withdrawn.

Additionally, Claim 26 stands rejected over Reeves under 35 USC 102(b). The Office Action asserts that “the finished absorbent article disclosed by Reeves can be made by the method described.” (Paper No. 7 at 3.)

As mentioned above, Reeves discloses that the absorbent material is compressed into sheets. (Column 2, lines 8-13.) The sheets are cut by conventional paper cutting apparatus. (Column 2, lines 14-15.) The absorbent material must be at a required stiffness in order that paper cutting apparatus be utilized. (Column 2, lines 16-18.) Reeves further discusses that the thickness of the sheet material is the thickness of a paper sheet. (Column 2, lines 23-24.) Compression can be accomplished by utilizing compression rollers found in paper making art. (Column 2, lines 29-31.)

Reeves only discloses a specific method of making the absorbent sheet. In making the rejection under 35 USC 102(b), the Office Action states that the “finished absorbent article disclosed by Reeves can be made by the method described.” Further, as discussed above regarding Claim 1 and claims dependent thereon, there is no teaching in Reeves that its matt is compressed to within about 20% of the matt’s maximum volume capacity (see Claim 27). As anticipation requires “identity of invention” wherein each and every element recited in a claim must be found in a single prior art reference, this rejection is improper and should be withdrawn.

Claims 20-22, 26, 30-33 and 36 stand rejected under 35 USC 102(e) as being anticipated by Carlucci et al. (US Patent No. 6,191,340) (“Carlucci”). Applicant respectfully traverses this rejection.

The invention as defined in Claim 20 relates to a tampon formed of a liquid-permeable bag that contains a plurality of tablets of compressed, fibrous, absorbent material. The tablets have a bulk density of at least about 0.5 g/cm<sup>3</sup>.

Carlucci discloses a disposable absorbent article designed to be worn external to the body and to receive fluids discharged from the body. (Column 1, lines 7-9.) The disposable article is substantially flat prior to use. (Column 4, lines 9-10.) As shown in FIGs. 1 and 2, the sanitary napkin 20 preferably comprises a liquid pervious topsheet 24, a liquid impervious backsheet 26 joined to the topsheet 24, and an absorbent core 28 intermediate the topsheet 24 and the backsheet 26; the absorbent core 28 comprises an expanding layer 46 which is preferably capable of expanding the sanitary napkin into a tridimensional structure while being worn by the user. (Column 4, lines 53-60.) The absorbent core 28 may comprise an expanding layer 46 and a separate non-expanding layer 44. (Column 4, lines 62-64.) The expanding layer 46 comprises a number of smaller expanding elements 50 that are decoupled, that is, are distinct from one another, each of said smaller expanding elements 50 is capable of expanding substantially in only one direction upon activation of body fluids. (Column 8, lines 27-31.) The smaller expanding elements 50 are randomly distributed within the expanding layer 46, and different smaller expanding elements 50. The smaller expanding elements 50 can be achieved by cutting in the desired shape a sheet of compressed regenerated cellulose sponge of the appropriate thickness. (Column 12, lines 43-45.) The expanding layer 46 comprising a fluid permeable sheet 47, longitudinally folded twice on itself with overlapping longitudinal edges joined to each other by known means; the folded sheet 47 is also joined to itself at its transverse ends. (Column 9, lines 7-13.)

According to Meriam Webster's Collegiate Dictionary, tenth edition, sponge is defined as "an elastic porous mass of interlacing horny fibers that form the internal skeleton of various marine animals and is able when wetted to absorb water." Additionally, the word "horny" is defined as of or made of horn." Carlucci discloses that the regenerated cellulose sponge is a sponge of a material containing a cellulose skeleton. (Column 12, lines 5-7.) A regenerated sponge can be prepared from a mixture of viscose, reinforcing fibers and a pore forming constituent. (Column 12, lines 12-14 and U.S. Patent No. 3,954,493, column 1, lines 13-18.) The compressed regenerated cellulose

sponge of Carlucci has a network structure that contains air bubbles created by elimination of salt crystals. (Column 12, lines 23-25.)

In making the rejection, the Office Action asserts that Carlucci discloses an absorbent article 20, as shown in figure 3, comprising a liquid-permeable bag 47 containing a plurality of tablets of an absorbent material 50. (Paper No. 7 at 4.) The absorbent material 50 of Carlucci comprises a compressed cellulose sponge having a density of 1 g/cc, as disclosed in column 3, lines 28-31. (Paper No. 7 at 4.)

Again, the present invention relates to a tampon, a device for internal application in the body, not a device designed to be worn external to the body. As anticipation requires "identity of invention" wherein each and every element recited in a claim must be found in a single prior art reference, this rejection is improper and should be withdrawn.

Additionally, Claim 26 stands rejected over Carlucci under 35 USC 102(b). The Office Action asserts that "the finished absorbent article disclosed by Carlucci can be made by the method described." (Paper No. 7 at 4.)

Carlucci discloses that the smaller expanding elements 50 can be achieved by cutting in the desired shape a sheet of compressed regenerated cellulose sponge of the appropriate thickness. (Column 12, lines 43-46.) Compression of the sponge occurs prior to the cutting of the expanding elements 50.

Carlucci only discloses a specific method of making the absorbent sheet. In making the rejection under 35 USC 102(b), the Office Action states that the "finished absorbent article disclosed by Carlucci can be made by the method described." Further, as discussed above regarding Claim 1 and claims dependent thereon, there is no teaching in Carlucci that its smaller expanding elements are compressed to within about 20% of their maximum volume capacity (see Claim 27). As anticipation requires "identity of invention" wherein each and every element recited in a claim must be found in a single prior art reference, this rejection is improper and should be withdrawn.

Claim 14 stands rejected under 35 USC 103(a) as being unpatentable over Reeves as applied to claim 1 above, and further in view of Foley et al. (US Patent No. 5,817,077) ("Foley"). Applicant respectfully traverses this rejection.

The disclosure of Reeves as set forth above is incorporated herein by reference.

Foley discloses the reduction of vaginal epithelium drying due to tampon use by one or more techniques intended to reduce capillary suction pressure-induced wicking of moisture from the vaginal epithelium by the tampon. (Column 3, lines 10-15.) One of the techniques is the use of a particular outer wrap, which may decrease the hydrophilicity of a substantial thickness of the outer portion of the tampon. (Column 3, lines 16-20.) Another technique disclosed is the use of a particular absorbent core such that the capillary suction pressure of the core is decreased. (Column 3, lines 23-27.) The absorbent core may contain substantial amount of hydrophobic fibers together with hydrophilic fibers in a blend of fibers, the hydrophobic fibers being wettable. (Column 3, lines 27-32.) Additionally, the diameter of the fibers may be increased to reduce capillary suction pressure or the density of the absorbent core may be decreased. (Column 3, lines 32-36.)

In making the rejection, the Office Action asserted that Reeves discloses all aspects of the claimed invention with the exception of the apertured film overwrap. (Paper No. 7 at 5.)

To fill the acknowledged gap, the Office Action relied upon column 4, lines 37-43 of Foley. The Office Action further states that the purpose of an apertured film overwrap is to "reduce the amount of moisture absorbed from the epithelial tissue, thus keeping the tissue from drying out, as described in column 2, lines 54-61." (Paper No. 7 at 5.)

The Office Action the concluded that it would therefore be obvious to one of ordinary skill in the art at the time of invention to wrap the absorbent article of Reeves with the apertured film of Foley to prevent the epithelial tissue of the wearer from drying out." (Paper No. 7 at 5.)

At the outset, the Office Action has not set forth any reasoned analysis as to why Reeves, relating to an external absorbent article, and Foley, relating to an internal absorbent article, would be combined in the first place, much less combined in a manner that would render claim 14 unpatentable. As well settled, obviousness cannot be established by locating references that allegedly describe various aspects of a patent applicant's invention without also providing evidence of the motivating force that would impel one skilled in the art to do what the patent applicant has done. The rejection of

claim 14 fails to provide any reason why one would be motivated, let alone impelled, to combine the cited references, much less combined in the manner intended by claim 14. Thus, the rejection fails to set forth the required facts and reasoning required to support a *prima facie* case of obviousness. For this reason alone, the rejection should be withdrawn.

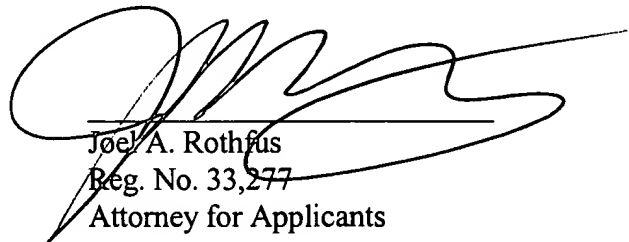
Notwithstanding the above, in order to expedite prosecution on the merits, the following attempt is made to discern and address the Office Action's basis of rejection for claim 14.

Reeves is silent with regard to the absorbent material having a bulk density within about 20% of said absorbent's maximum volume capacity. Foley is relied upon for disclosure of an apertured film in order to reduce the amount of moisture absorbed from the epithelial tissue.

Combining Reeves and Foley does not overcome the failings of Reeves. Therefore, the Office fails to make a *prima facie* case of obviousness, and the rejection should be removed.

Applicant believes that the foregoing presents a full and complete response to the outstanding Office Action. Applicant looks forward to an early notice of allowance for this application.

Respectfully submitted,



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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

Claims 1, 20, 26, and 27 are reproduced below, identifying the changes made.

1. (Amended) An absorbent article comprising a fluid-permeable overwrap containing a plurality of tablets of compressed, fibrous, absorbent material having a bulk density within about 20% of said absorbent material's bulk density at its maximum volume capacity.

20. (Amended) An absorbent article comprising a liquid-permeable bag in the form of a tampon containing a plurality of tablets of compressed, fibrous, absorbent material, said tablets having a bulk density of at least about 0.5 g/cm<sup>3</sup>.

26. (Amended) A method of making an absorbent article, said method comprising the steps of:

- a) [mixing fibrous, absorbent material;
- b)] forming [the mixed] fibrous, absorbent material into compressed tablets;
- [c)b) placing the compressed tablets into an overwrap; and
- [d)c) sealing the overwrap.

27. (Amended) A method of claim 26, wherein the absorbent material is compressed to form tablets having a predetermined density within 20% of said absorbent material's bulk density at its maximum volume capacity.

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